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#3

RAW SEQUENCE LISTING   DATE: 03/06/2002 P.6
PATENT APPLICATION: US/09/927,811A   TIME: 10:19:49

Input Set : **A:\pto.vsk.txt**
Output Set: **N:\CRF3\03062002\I927811A.raw**

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 3 <110> APPLICANT: RheinBiotech Gesellschaft fur neue biotechnologische Prozesse und
 4       Produkte mbH
 5       Romano, Ivano
 6       Gellissen, Gerd
 7       DeVergilio, Claudio
 9 <120> TITLE OF INVENTION: Heat-Inducible Promoter
11 <130> FILE REFERENCE: PCT1106-01966
13 <140> CURRENT APPLICATION NUMBER: 09/927,811A
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C--> **14 <141> CURRENT FILING DATE: 2002-02-22**
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16 <150> PRIOR APPLICATION NUMBER: PCT/EP00/01144
17 <151> PRIOR FILING DATE: 2000-02-11
19 <160> NUMBER OF SEQ ID NOS: 27
21 <170> SOFTWARE: PatentIn version 3.1
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24 <211> LENGTH: 792
25 <212> TYPE: DNA
26 <213> ORGANISM: Hansenula polymorpha
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33 tctatgtgag gcagtcacga tagaattcca tcgaactcgt cagcgccaaa tgtgaatgcg   180
35 gctttcaaaa gctttgtcga atttgggatg ggaatccatg aatcgaagat gtcaaaatgg   240
37 gggatcacaa aagtacactc acgaggaaaa tcaaaacctt ctcgtacctt taacacatac   300
39 ggaaatgatc gatcgatttg agaagattcc tcaatgattt tcgtcatata taggtatctg   360
41 aggtatttat ggaccgattc gtaataacat catatacatc gcgctttgtc cctgtcccag   420
43 agatttcgat gaaaaaagcg aattttattc taatatttga agcatgccaa acatggggca   480
45 gttgatttgt gtgagggtaa aatatcatga attgcaccca tcaaatgcag caagatattg   540
47 accaatccta aatagaaaa cagacttacc acaaatagat tgtgatgacg atattatgaa   600
49 tctccagatg aaaggctcga aagctatgaa gcctcttgaa acttttcatg gtgagataat   660
51 attttcgaaa tttccacgaa cttctaaaac gcaattattg aatataaagg aaaaataata   720
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55 catttgatac ca                                                       792
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64 <223> OTHER INFORMATION: Consensus sequence for a heat shock element
66 <220> FEATURE:
67 <221> NAME/KEY: misc_feature
68 <222> LOCATION: (1)..(15)
69 <223> OTHER INFORMATION: n may be a,c,t, or g
72 <400> SEQUENCE: 2
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Input Set : A:\pto.vsk.txt
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     85 <221> NAME/KEY: misc_feature
     86 <222> LOCATION: (1)..(15)
     87 <223> OTHER INFORMATION: n is a, c, t,or g; b is g, c, or t; w is a or t; and m is c
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    128 acggcattac aagggctcaa aaatccattt cgatggtttg gatggcctgg gatgtctgtt  180
    130 gatagcgaac agggacgaca aactgtcgag cgggatttga aggaaaagtt caattgttat  240
    132 ccgatatggt taagtgacga aattgcagac ttacattata acggctttag caattctata  300
    134 ctttggccat tgttccacta tcacccaggg gagatgaatt ttgatgaaat tgcttgggcc  360
    136 gcttatttgg aagcaaataa actgttttgc caaacgatct taaaggagat aaaagacggg  420
    138 gacgttatct gggtacatga ttatcatctc atgttgttgc cttcactgct aagagaccaa  480
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    144 tgtgatttga taggtttcca cacctatgat tatgtccgtc actttcttag ttcggttgaa  660
    146 agaatattga aattgcgaac gagcccacaa ggtgttgtct ataatgatag acaggtgact  720
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    150 gaggtcaaaa gcaggataaa acagctggaa accagatttg gtaaagattg taaacttatt  840
    152 attggggtgg acaggctgga ttacatcaaa ggtgtacctc aaaaactcca cgcgtttgaa  900
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Input Set : A:\pto.vsk.txt
Output Set: N:\CRF3\03062002\I927811A.raw

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182 caaggataca ggttgaccat ggaagacgcg ttctgtgatt tgaacgaaag aatattcgtg  1800
184 acggaagagg gacttgacat cagaaaacaa gacgagaata cagagggtga tctggagtct  1860
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194 <400> SEQUENCE: 7

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201             20                  25                  30
204 Thr Met Ser Ser Gly Gly Leu Val Thr Ala Leu Gln Gly Leu Lys Asn
205         35                  40                  45
208 Pro Phe Arg Trp Phe Gly Trp Pro Gly Met Ser Val Asp Ser Glu Gln
209     50                  55                  60
212 Gly Arg Gln Thr Val Glu Arg Asp Leu Lys Glu Lys Phe Asn Cys Tyr
213 65                  70                  75                  80
216 Pro Ile Trp Leu Ser Asp Glu Ile Ala Asp Leu His Tyr Asn Gly Phe
217             85                  90                  95
220 Ser Asn Ser Ile Leu Trp Pro Leu Phe His Tyr His Pro Gly Glu Met
221             100                 105                 110
224 Asn Phe Asp Glu Ile Ala Trp Ala Ala Tyr Leu Glu Ala Asn Lys Leu
225         115                 120                 125
228 Phe Cys Gln Thr Ile Leu Lys Glu Ile Lys Asp Gly Asp Val Ile Trp
229     130                 135                 140
232 Val His Asp Tyr His Leu Met Leu Leu Pro Ser Leu Leu Arg Asp Gln
233 145                 150                 155                 160
236 Leu Asn Ser Lys Gly Leu Pro Asn Val Lys Ile Gly Phe Phe Leu His
237                 165                 170                 175
240 Thr Pro Phe Pro Ser Ser Glu Ile Tyr Arg Ile Leu Pro Val Arg Lys
241             180                 185                 190
244 Glu Ile Leu Glu Gly Val Leu Ser Cys Asp Leu Ile Gly Phe His Thr
245         195                 200                 205
248 Tyr Asp Tyr Val Arg His Phe Leu Ser Ser Val Glu Arg Ile Leu Lys
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257              245                250                255
260 Leu Lys Thr Asp Glu Val Lys Ser Arg Ile Lys Gln Leu Glu Thr Arg
261              260                265                270
264 Phe Gly Lys Asp Cys Lys Leu Ile Ile Gly Val Asp Arg Leu Asp Tyr
265         275                280                285
268 Ile Lys Gly Val Pro Gln Lys Leu His Ala Phe Glu Ile Phe Leu Glu
269         290                295                300
272 Arg His Pro Glu Trp Ile Gly Lys Val Val Leu Ile Gln Val Ala Val
273 305                310                315                320
276 Pro Ser Arg Gly Asp Val Glu Glu Tyr Gln Ser Leu Arg Ala Ala Val
277              325                330                335
280 Asn Glu Leu Val Gly Arg Ile Asn Gly Arg Phe Gly Thr Val Glu Phe
281              340                345                350
284 Val Pro Ile His Phe Leu His Lys Ser Val Asn Phe Gln Glu Leu Ile
285         355                360                365
288 Ser Val Tyr Ala Ala Ser Asp Val Cys Val Val Ser Ser Thr Arg Asp
289         370                375                380
292 Gly Met Asn Leu Val Ser Tyr Glu Tyr Ile Ala Cys Gln Gln Asp Arg
293 385                390                395                400
296 Lys Gly Ser Leu Val Leu Ser Glu Phe Ala Gly Ala Ala Gln Ser Leu
297              405                410                415
300 Asn Gly Ala Leu Val Val Asn Pro Trp Asn Thr Glu Glu Leu Ser Glu
301              420                425                430
304 Ala Ile Tyr Glu Gly Leu Ile Met Ser Glu Glu Lys Arg Arg Gly Asn
305         435                440                445
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340 accaatccta aatagaaaaa cagacttacc acaaatagat tgtgatgacg atattatgaa   600
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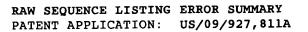
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422 <221> NAME/KEY: misc_feature
423 <222> LOCATION: (1)..(26)
424 <223> OTHER INFORMATION: n is an a, c, t, or g; v is an a, c, or g; y is a c or t;
427 <220> FEATURE:
428 <221> NAME/KEY: misc_feature
429 <222> LOCATION: (1)..(26)
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 03/06/2002
PATENT APPLICATION: US/09/927,811A   TIME: 10:19:50

Input Set : A:\pto.vsk.txt
Output Set: N:\CRF3\03062002\I927811A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; N Pos. 1,5,6,7,8,9,10,11,15
Seq#:3; N Pos. 1,5,6,10,11,15
Seq#:9; N Pos. 9

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/927,811A

DATE: 03/06/2002
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Input Set : A:\pto.vsk.txt
Output Set: N:\CRF3\03062002\I927811A.raw

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:73 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:91 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:434 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0